

Joelle Fitzgerald

HIDS 505 Federated Data Access - Assignment 6

10. Upload the query script and query results

Query Script used:

1. Load the extension in my local database (postgres_fdw is included in Postgres contrib, and you do need CREATE privileges on the local database):
2. Create a foreign server:
3. Set up a user mapping to authenticate:
4. Run CREATE FOREIGN TABLE, which is pretty similar to CREATE TABLE in that you have to define column names, data types, constraints etc.

'adam_fdw'

– creating extension for foreign server –

CREATE EXTENSION IF NOT EXISTS postgres_fdw;

– using foreign data wrapper and adam's IP address/port, database name and password to access aggregate server –

CREATE SERVER adam_fdw FOREIGN DATA WRAPPER postgres_fdw OPTIONS (host '35.185.93.26', port '5432', dbname 'postgres');

CREATE USER MAPPING FOR postgres SERVER adam_fdw OPTIONS (user 'postgres', password 'hids505adam');

GRANT USAGE ON FOREIGN SERVER adam_fdw to postgres;

IMPORT FOREIGN SCHEMA public LIMIT TO (patient) FROM SERVER adam_fdw INTO public;

ALTER FOREIGN TABLE patient RENAME to patient_adam;

Same query used for other classmate's servers (can be altered for each database/server):

'ansel_fdw'

CREATE EXTENSION IF NOT EXISTS postgres_ansel;

CREATE SERVER ansel_fdw FOREIGN DATA WRAPPER postgres_ansel OPTIONS (host '34.23.236.161', port '5432', dbname 'postgres');

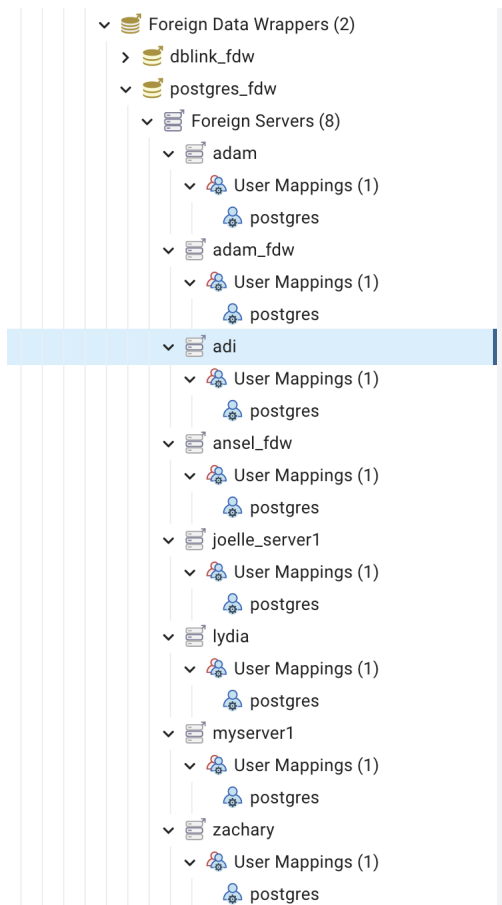
CREATE USER MAPPING FOR postgres SERVER ansel_fdw OPTIONS (user 'postgres', password 'qwerty');

GRANT USAGE ON FOREIGN SERVER ansel_fdw to postgres;

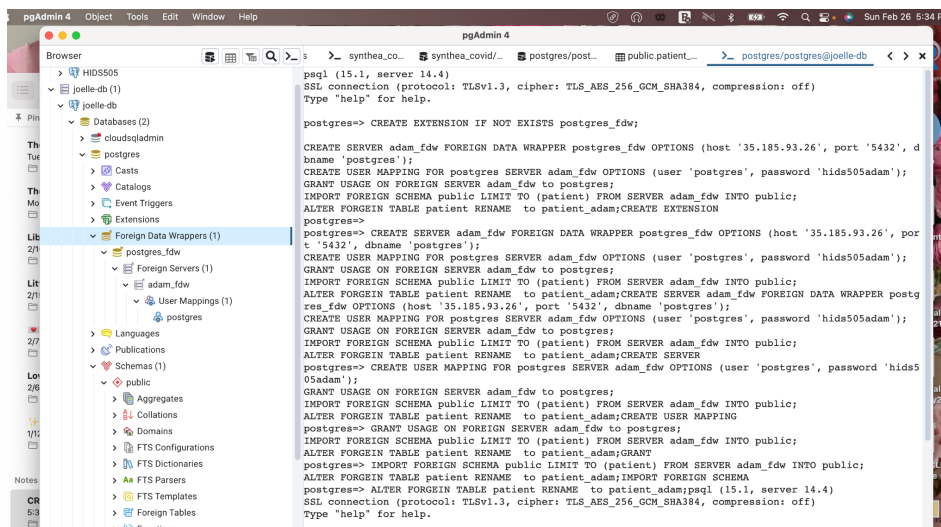
IMPORT FOREIGN SCHEMA public LIMIT TO (patient) FROM SERVER ansel_fdw INTO public;

ALTER FOREIGN TABLE patient RENAME to patient_ansel;

Query results: Creation of servers under 'Foreign Data Wrappers'



11. Capture and upload snapshots of the current aggregate result



Demonstrating aggregate results from foreign tables:

The screenshot shows a database query editor with two tabs: "Query" and "Query History". The "Query" tab is active, displaying a SQL query:

```
1 SELECT COUNT(*)
2 FROM public.joelle5, public.adam2;
```

Below the query editor, there are three tabs: "Data Output", "Messages", and "Notifications". The "Data Output" tab is active, showing a table with the following data:

	count
	bigint
1	111848280

The screenshot shows a database schema browser with a tree view. The "Foreign Tables (8)" folder is expanded, showing a list of foreign tables:

- adam2
- adi
- joelle5
- lydia
- patient
- syed2
- yuan
- zachary

Below the foreign tables, there are other database objects:

- Functions
- Materialized Views
- Operators
- Procedures